



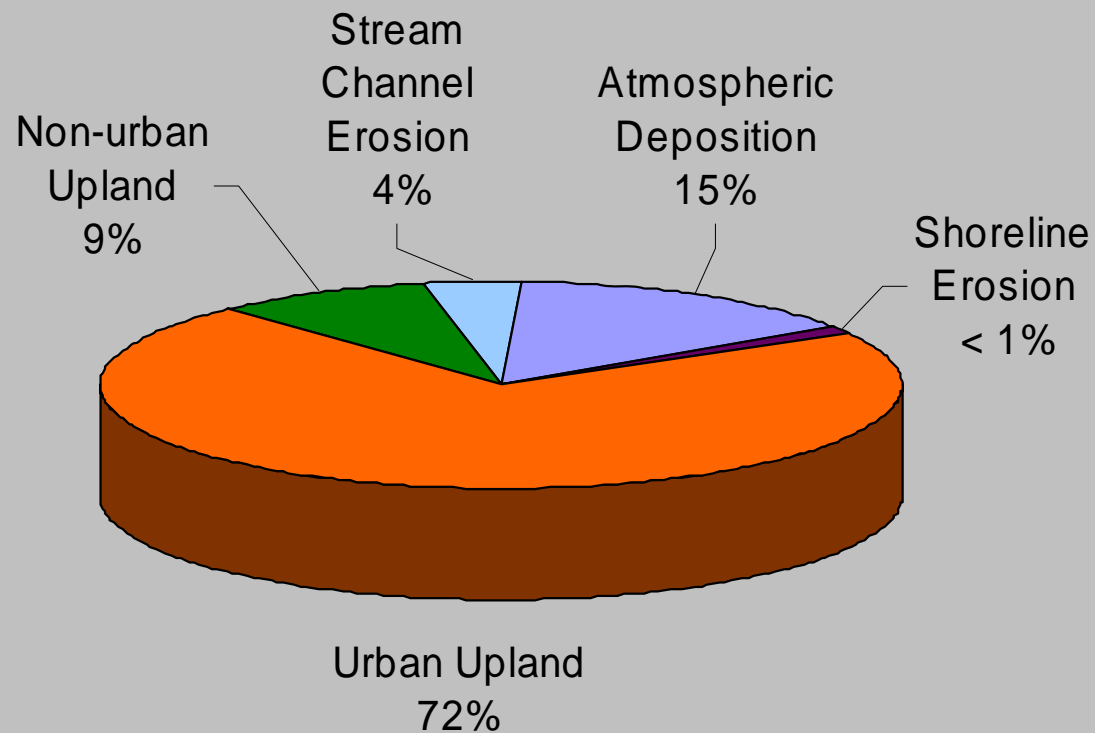
Allocating Allowable Pollutant Loads

Presentation Outline

1. Current load estimates by jurisdiction
2. Spreadsheet discussion of jurisdiction loads by land use
3. Allocation approaches
4. Next steps

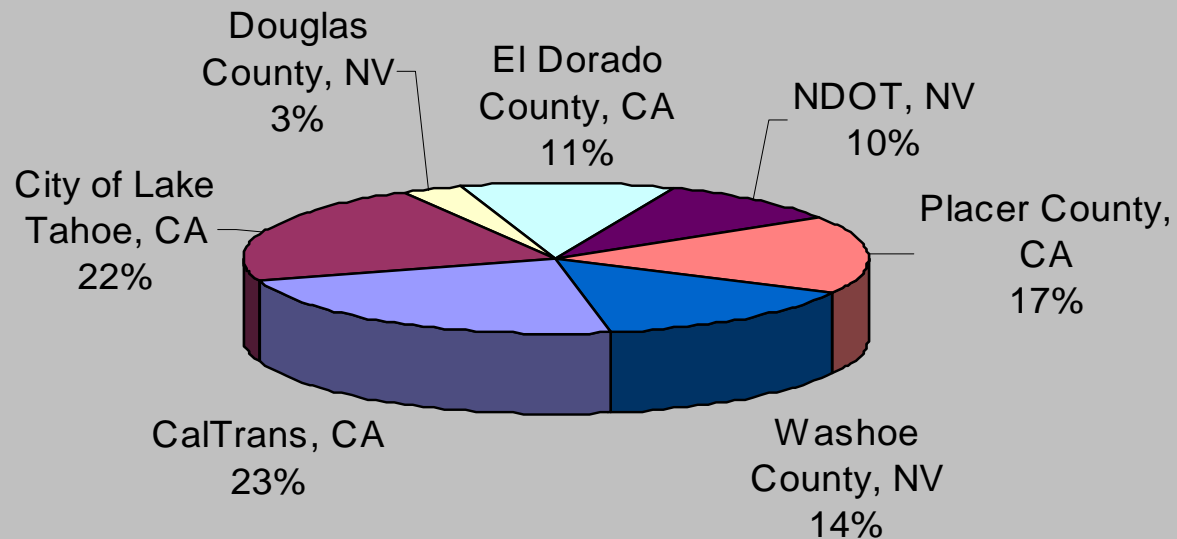
Particle Loads by Source

Fine Sediment Particle Number Estimates - Percent Contribution by Source Category

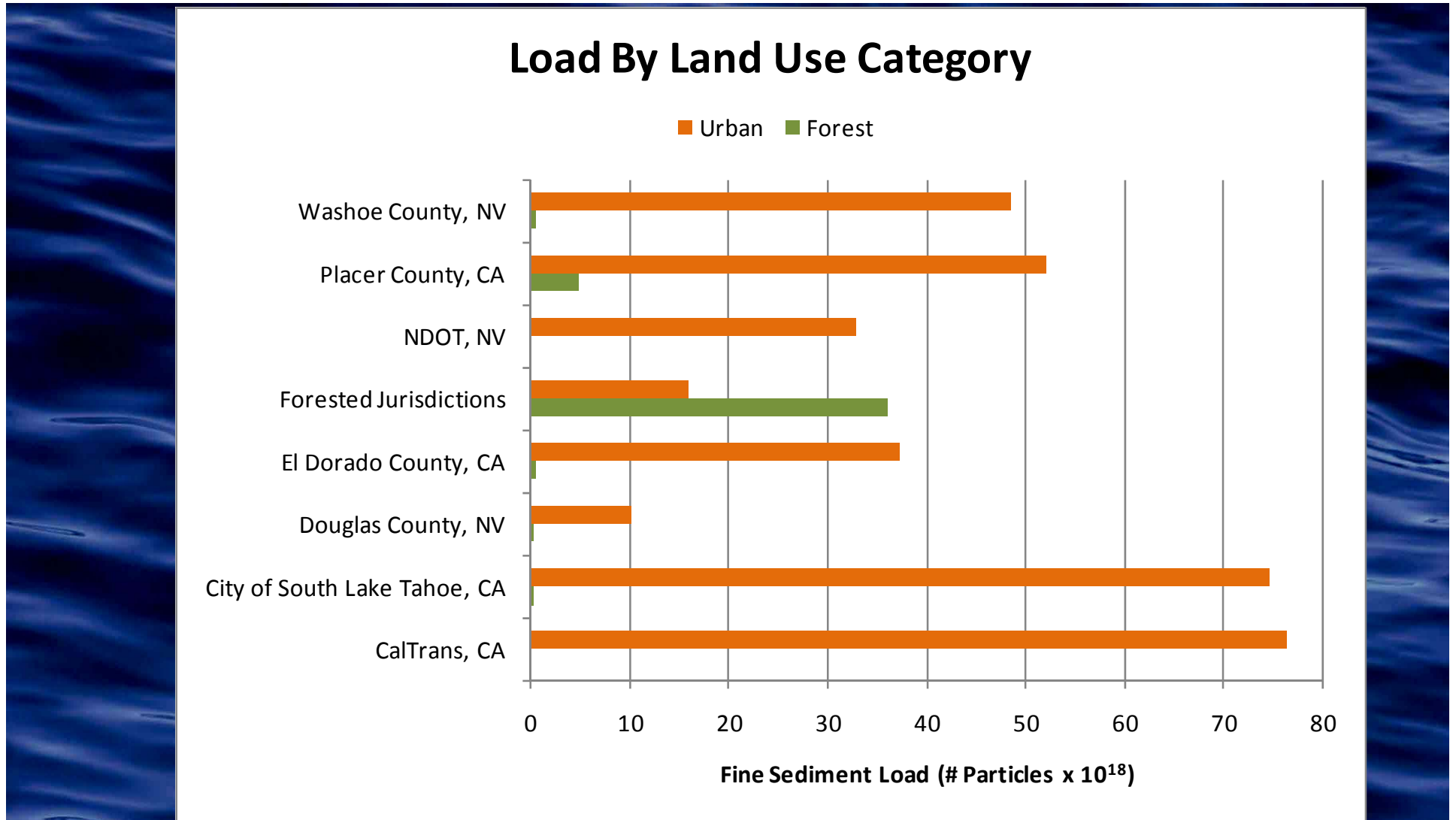


Urban Particle Loads – How the 72% is Distributed

Urban Fine Sediment Particle Number Estimates - Percent by Jurisdiction



Urban Particle Loads – How the 72% is Distributed



Pollutant Loads by Jurisdiction



We have tables, charts, and graphs.....

Information to Inform Allocation Process

Allocation process is informed by two “foundations”:

1. Lake Tahoe Watershed Model

Model output provides upland loading analysis by land use and by jurisdiction

2. Pollutant Reduction Opportunity Analysis

Recommended Strategy provides relative load reductions among the four major source categories

Lake Tahoe Watershed Model

Model parameters account for:

Different land use patterns

Precipitation distribution

Soils and geology

Model outputs provide:

Baseline pollutant loads by jurisdiction

Relative loading by land use

Pre-development load estimates

Allocation Approach Options

- a. Equal Percent Reductions by Subwatershed**
- b. Load Reductions by Major Watershed**
- c. Land Use-Specific Load Reductions**
- d. Jurisdiction-Specific Load Reductions**
- e. Load Reductions by Major Pollutant Source**
- f. Load Reductions by Relative Anthropogenic Input**

Possible Allocation Approaches

- a. Equal Percent Reductions by Subwatershed
- b. Load Reductions by Major Watershed
- c. Land Use-Specific Load Reductions**
- d. Jurisdiction-Specific Load Reductions**
- e. Load Reductions by Major Pollutant Source**
- f. Load Reductions by Relative Anthropogenic Input**

Recommended Strategy Approach

**Based on PRO Analysis and the identified
Recommended Strategy**

Allocations are divided by:

Major pollutant source category

Urban jurisdiction

Land use

Basin-Wide Implementation Reductions Recommended Strategy

To reach the Clarity Challenge:

Total Fine Particle Reduction = ~32% over 15 years

1.0% Fine Particle Reduction from Forest Uplands

1.8% Fine Particle Reduction from Stream Channel Erosion

4.6% Fine Particle Reduction from Atmospheric Deposition

24.5% Fine Particle Reduction from Urban Uplands

Expected Percent Reductions by Source

Source percentages are determined by dividing the expected percent reduction (at 15 years) by the percent contribution:

Forest Uplands: $1\% / 9\% = \underline{12\% \text{ Reduction}}$

Stream Channel Erosion: $1.8\% / 3\% = \underline{53\% \text{ Reduction}}$

Atmospheric Deposition: $4.6\% / 16\% = \underline{30\% \text{ Reduction}}$

Urban Uplands: $24.5\% / 72\% = \underline{34\% \text{ Reduction}}$

Anthropogenic Inputs vs. Background Loads

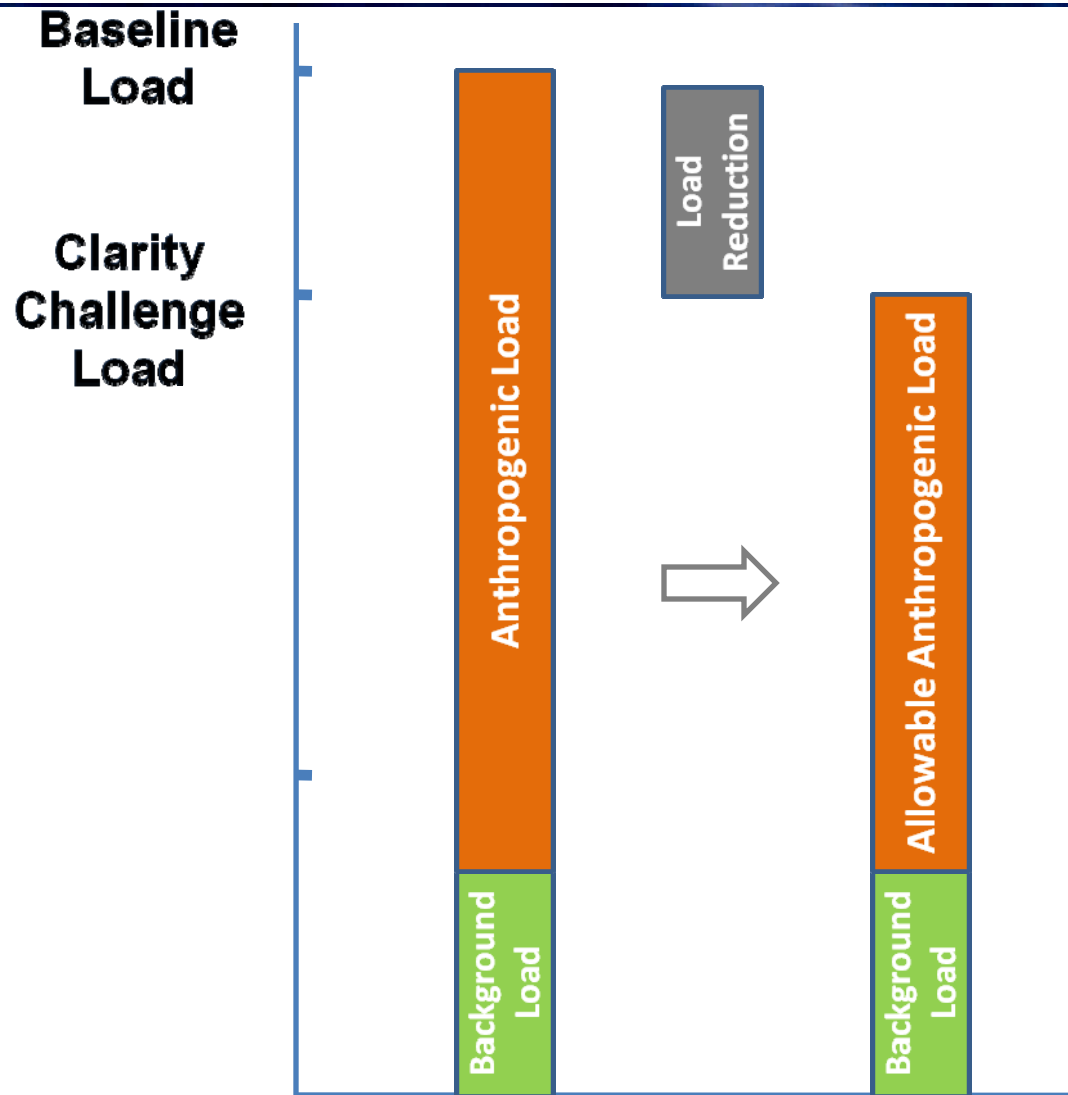
Determine basin-wide and jurisdiction-specific “background” load

Determine basin-wide and jurisdiction-specific “anthropogenic” load

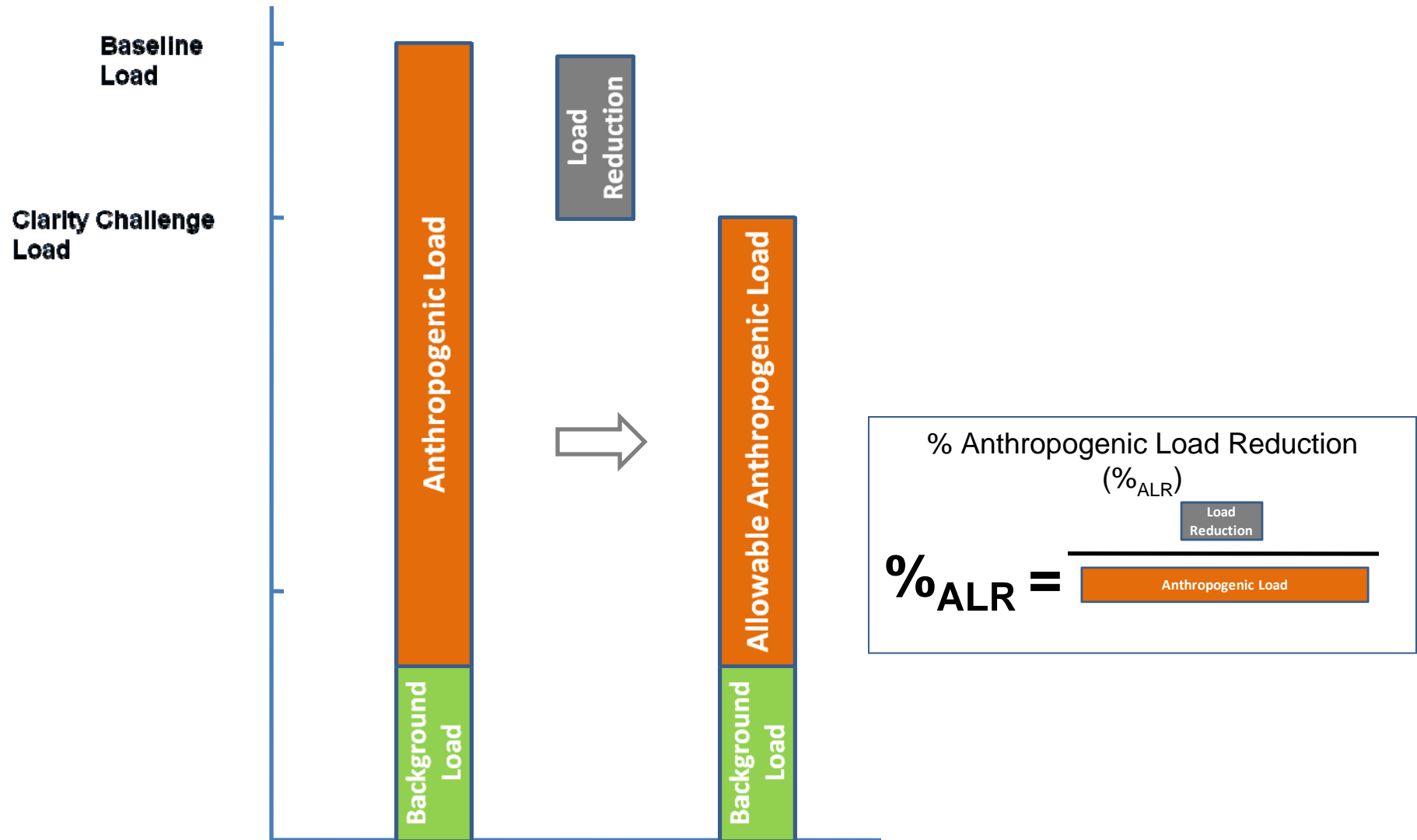
Allocate loads based on each jurisdiction’s “anthropogenic” contribution

Load allocations would not apply to the “background” load

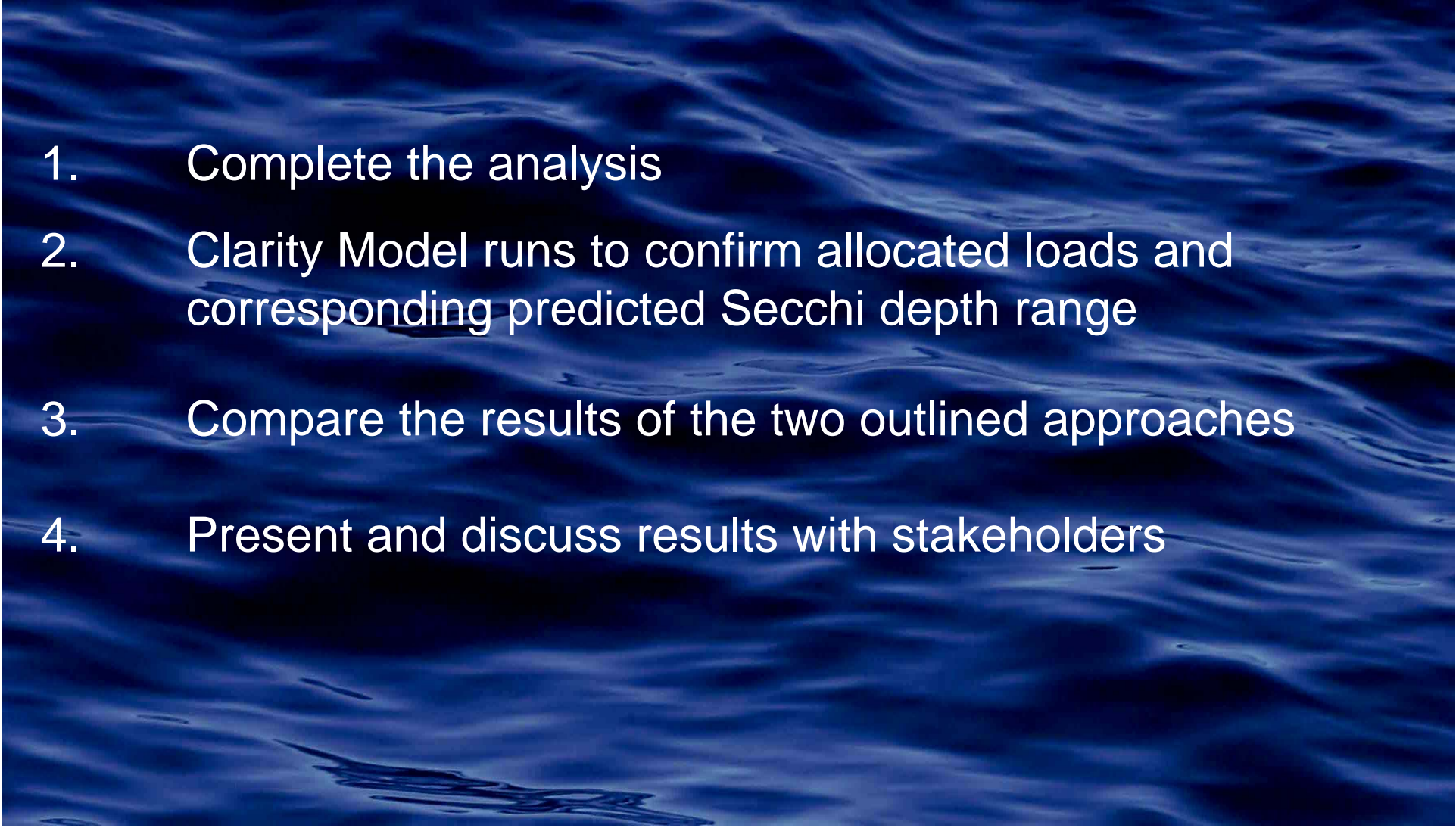
Anthropogenic Loading



Anthropogenic Loading

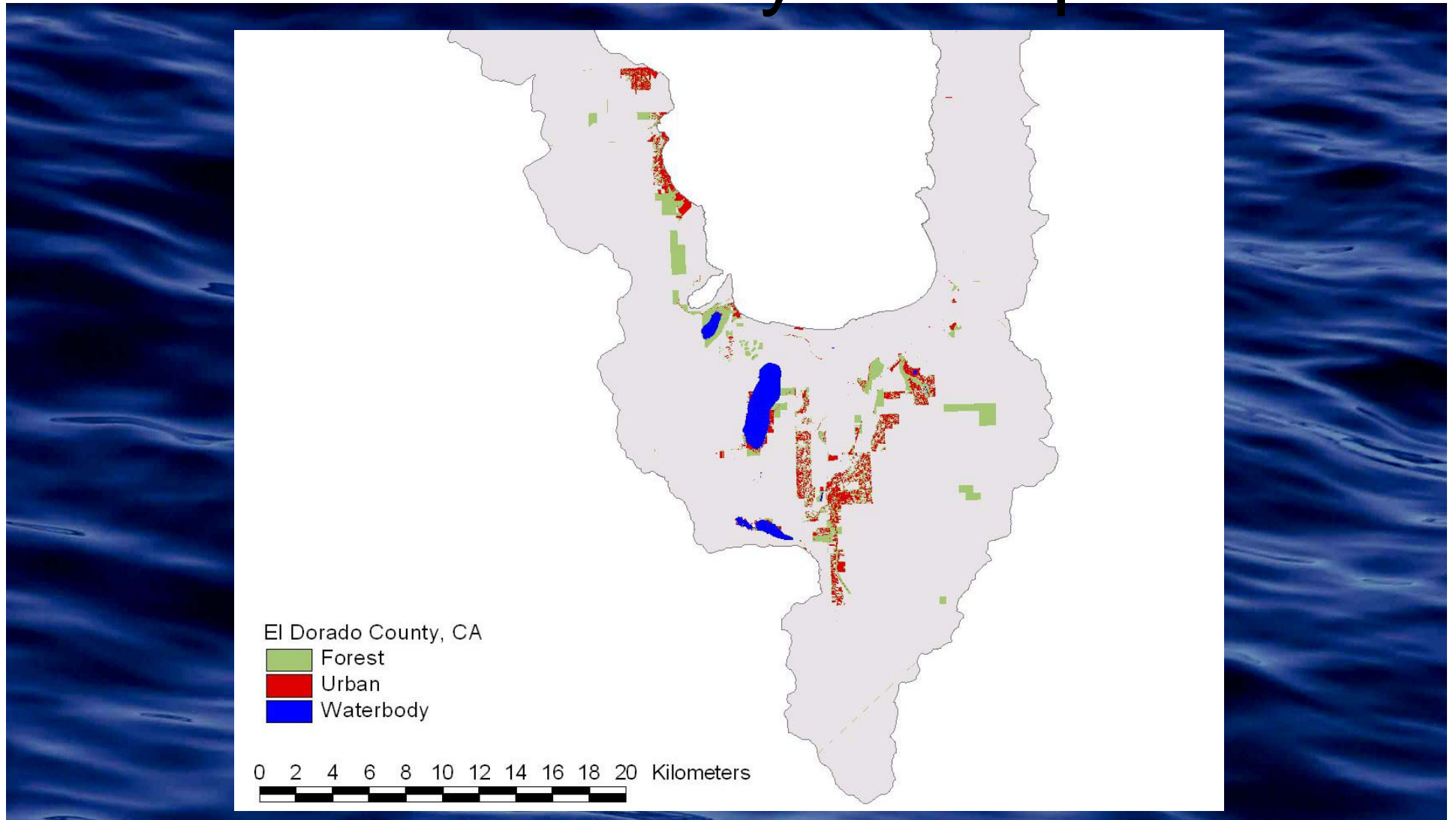


Next Steps

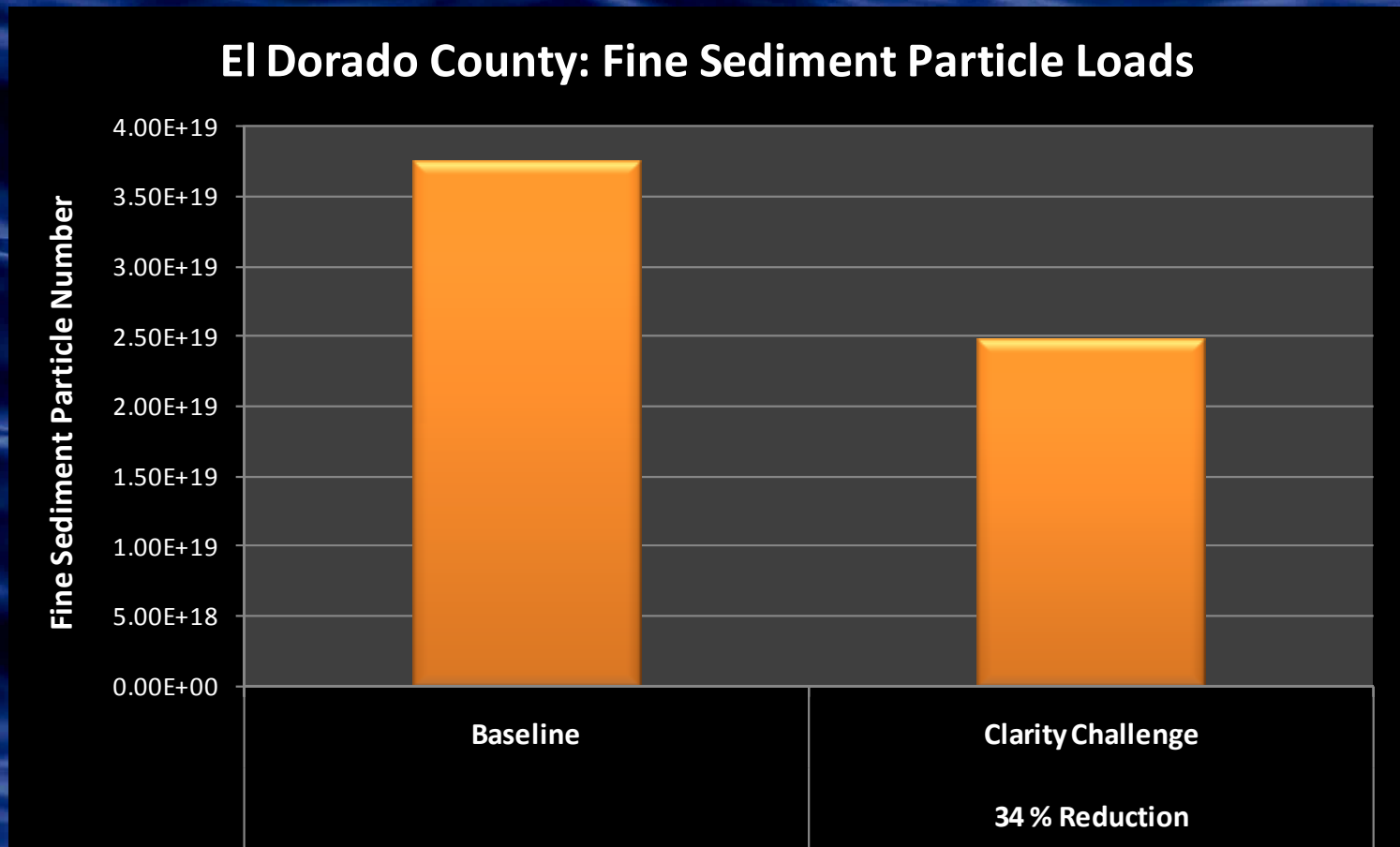
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1. Complete the analysis
 2. Clarity Model runs to confirm allocated loads and corresponding predicted Secchi depth range
 3. Compare the results of the two outlined approaches
 4. Present and discuss results with stakeholders



El Dorado County Example

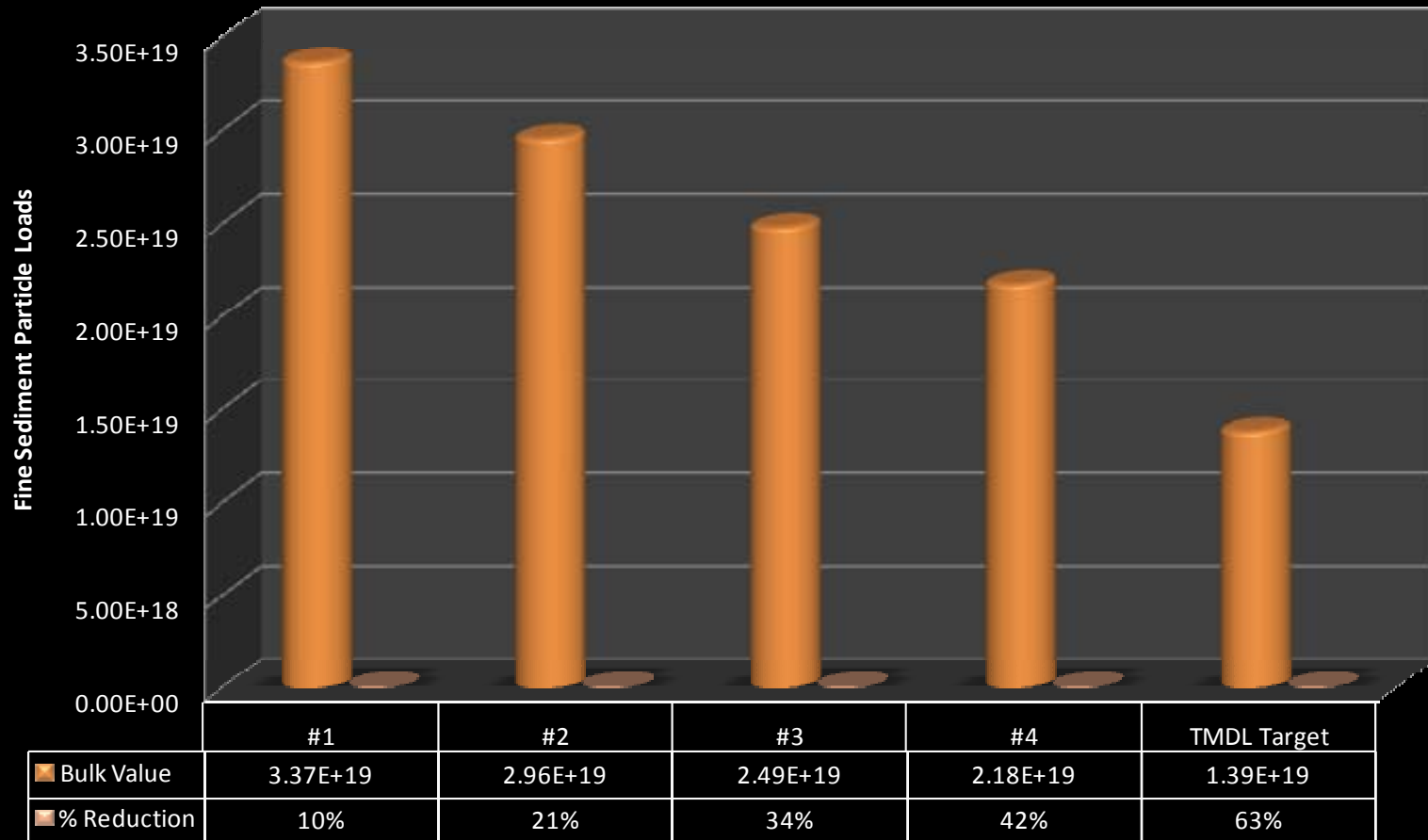


Example Load Reduction



Recommended Strategy Milestones

Milestone Example: El Dorado County



Land Use Area by Jurisdiction

